

I have suggested that the most effective solution is to alter the pressure on researchers, so that they are encouraged to publish small quantities of good work rather than just large quantities of publications regardless of quality.² May I suggest that the BMA recommend to the Medical Research Council, the medical charities, and clinical and academic organisations responsible for staff appointment, tenure, and promotion that they should alter the section on their application forms which currently reads "Publications (continue on attached sheet(s) if necessary)" to read "List not more than 6 of your publications by which you would wish your application to be judged."

If a few major organisations would take the lead on this I am convinced that researchers would soon change their publishing patterns to try to produce publications which would stand up to exhaustive scrutiny, rather than, as at present, desperately trying to fill out attached sheets of paper with anything they can get their name on to.

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Drug points

Mefenamic acid nephropathy—acute renal failure in overdose

Drs A J TURNBULL, P CAMPBELL, and J A HUGHES (Gastrointestinal Laboratory, Rayne Institute, St Thomas's Hospital, London SE1 7EH) write: The nephrotoxic effects of mefenamic acid in medium to long term use are well known. We describe a case of acute renal failure after a single overdose.

A 30 year old man, previously well and taking no regular medication, was admitted collapsed, having taken about fifty 250 mg mefenamic acid tablets (12.5 g). He was restless and agitated, had a depressed level of consciousness, and had a blood pressure of 110/80 mm Hg. He was paralysed and intubated and gastric lavage performed. He rapidly developed generalised tonic-clonic convulsions requiring intravenous diazepam and, later, chlormethiazole. Serum biochemistry values on admission were normal, and neither salicylate nor paracetamol was detected. Twenty four hours later he developed bloody diarrhoea, abdominal pain, and vomiting lasting 18 hours. He remained well hydrated and normotensive and received intravenous fluids and oral antacids. Twenty four hours after admission the serum creatinine concentration rose to 366 µmol/l, peaking at 804 µmol/l five days after the overdose and subsequently falling steadily to 221 µmol/l over the following week. The serum urea concentration rose to a maximum of 21 mmol/l. Creatinine clearance four days after admission was 15 ml/min, rising to 54 ml/min 11 days after the overdose. Neither casts nor myoglobin was present in the urine and the serum creatine phosphokinase value peaked at only 248 U/l (normal <110 U/l).

Conservative treatment for acute renal failure was started and dialysis was not required. Four days after admission he developed severe bilateral loin pain and microscopic haematuria. Renal ultrasound showed no evidence of obstruction and intravenous urography showed normal kidneys. Serial mefenamic acid measurements showed a peak of 46 mg/l on admission, falling to 4 mg/l 21 hours later and becoming undetectable within 27 hours. Expected therapeutic concentrations are up to 10 mg/l.

Mefenamic acid is an increasingly common problem in analgesic poisoning.¹ Court and Volans reported one case of acute renal failure after consumption of 15 g mefenamic acid over four to five days,² but acute

renal failure has not been reported in association with a single overdose.

Nephrotoxic effects of mefenamic acid in medium to long term use include acute renal failure, interstitial nephritis, the nephrotic syndrome, and papillary necrosis.³ In 1980 six cases were reported of elderly women developing non-oliguric acute renal failure after two to six weeks' treatment at therapeutic doses.⁴ The authors suggested that inhibition of renal prostaglandin synthesis reduced renal blood flow, resulting in ischaemic papillary necrosis, the effects being enhanced by dehydration. Subsequent reports indicate acute interstitial nephritis as the cause, renal biopsy showing interstitial inflammatory cell infiltrate.⁵

The abdominal pain and microscopic haematuria of the patient reported on here suggested renal tract obstruction, though we found no evidence of this. In the absence of other causes of acute renal failure, such as dehydration or myoglobinuria, we conclude that the nephrotoxicity of mefenamic acid may also be manifest in acute overdose. Such patients must remain adequately hydrated and their renal function must be monitored closely.

We thank the Poisons Unit, New Cross Hospital, for performing the mefenamic acid assays.

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Convulsive seizures after treatment with praziquantel

Drs JOSE L BADA, BEGOÑA TREVIÑO, and JUAN CABEZOS (Department of Microbiology, Universidad Autónoma, Barcelona, Spain) write: Praziquantel is considered to be a major advance in the treatment of schistosomiasis as well as other trematode and cestode infections because it is taken by mouth, usually as a single dose, and lacks apparent serious toxicity. Several studies confirm the absence of serious side effects after oral administration in short courses over 24-48 hours. Transient dizziness, headache, drowsiness, abdominal pain, nausea, and vomiting have been reported¹ and, in a few patients, fever, dysenteric stools, epistaxis, and urticaria.^{2,3} We report on a 32 year old Spanish man who was diagnosed as suffering from grand mal epilepsy at the age of 13. He was treated with diphenylhydantoin, phenobarbitone, and clonazepam and had had no seizures for the past seven years. An electroencephalogram taken in March 1986 during waking state was normal, but during stages I and II of slow wave sleep it showed paroxysmal generalised deep irritative manifestations. In November 1985 he travelled to north and west Africa, and in April 1986 he complained of high fever with shivering. *Plasmodium vivax* was seen in the blood. He was treated with chloroquine and primaquine at standard doses. A serological test for schistosomiasis was positive (indirect haemagglutination positive at 1/640), and *Schistosoma mansoni* eggs were found in the stools in June. He was treated with two doses of 20 mg praziquantel/kg 12 hours apart. About 12 hours after the second dose he suffered one tonic-clonic convulsive seizure with loss of consciousness and biting of the tongue, which was repeated two hours later. A neurological examination, electroencephalography, and computed topography performed several days later yielded normal results. No further seizures have been reported.

The convulsive seizures in this patient were probably due to praziquantel: the patient had had no attacks for seven years, there was no change in medication, no precipitating factor preceded the convulsion, and there was no seizure during a previous malaria attack, when fever reached 41°C. In cerebral cysticercosis praziquantel can precipitate fits, but we believe the patient's seizures were not a manifestation of cerebral schistosomiasis; this effect of praziquantel has not

been proved in cerebral schistosomiasis,⁴ and neurological signs and symptoms suggestive of central nervous system disease were absent before and after treatment with praziquantel.

To the best of our knowledge, this complication has not been reported as a side effect of praziquantel, although among 25 693 patients with *S. japonica* treated with this drug it was found that eight epileptic patients had seizures more frequently during and several days after praziquantel treatment.⁵ We recommend caution when praziquantel is used in patients with convulsive disorders.

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Is inosine pranobex contraindicated in autoimmune disease?

Drs A J CHUCK, J K LLOYD JONES, N A DUNN (Department of Rheumatology, Harlow Wood Hospital, Nottinghamshire), and R J POWELL (Department of Immunology, University Hospital, Nottingham) write: A 27 year old woman developed muscle pain and weakness, preceded for two years by arthralgia and for 12 months by extensor tendon nodules. Needle muscle biopsy confirmed active polymyositis. She responded to prednisolone 30 mg daily, which was gradually reduced. Extensive flat topped plane warts (human papillomavirus III by deoxyribonucleic acid hybridisation) later appeared on the face and limbs. These proved too numerous for treatment by podophyllin and cryotherapy, and inosine pranobex (Imunovir) 1 g four times daily was given. One week later muscle pain worsened accompanied by profound weakness. Inosine pranobex was withdrawn and prednisolone increased. The warts remained unchanged. The polymyositis deteriorated further when steroids were reduced. Antibodies to Jo-1 were present. Azathioprine 150 mg daily was started: the polymyositis improved rapidly and the warts disappeared over a period of two months. Prednisolone was gradually withdrawn.

Polymyositis is an autoimmune disease in which T cells sensitised to muscle predominate in the inflamed muscles; any drug which further enhances these T cell activities might exacerbate the disease. Inosine pranobex has been reported to potentiate IL-2 production¹ and thus to stimulate sensitised T lymphocytes. The detrimental effect of inosine pranobex might therefore have been predicted. Inosine pranobex has been used in small trials in treating a variety of other autoimmune diseases, including rheumatoid arthritis² and diabetes mellitus³ with no obvious detrimental effect; a single case report of a beneficial effect in systemic lupus erythematosus has recently been published.⁴ It could be suggested that B cell activation is more prominent in rheumatoid arthritis and in diabetes mellitus than in polymyositis; this alone, however, is unlikely to explain the apparent dichotomy of clinical effects because T cell activation is integrally implicated in B lymphocyte differentiation.

We are unaware of a previous report of the use of inosine pranobex in polymyositis. We believe that this drug was implicated here in the deterioration of the polymyositis and it should therefore be used with caution in this and other autoimmune diseases.

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